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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/599,798

10/10/2006

Yngve Andersson

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EXAMINER

AMIRMOKRI, JALALEDDIN

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/599,798	<b>Applicant(s)</b> ANDERSSON ET AL.	
	<b>Examiner</b> JALALEDDIN AMIRMOKRI	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's amendment filed on 04/23/09 has been entered. Claims 1-10 previously cancelled remain cancelled. No Claims have been added. Claims 11-18 are still pending in this application, with claim 11 and 15 being independent.

### ***Response to Arguments***

2. Applicant's arguments, see page 9, filed 04/23/09, with respect to the rejection(s) of claim(s) 11-18 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of RP-020384 (3GPP TSG-RAN meeting #16, "Issues with RRC CR 1478 on measurements", June 7, 2002) and Hur (US Patent No. 7,324,479).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 11, 12, 15 and 16 are rejected under 35 U.S.C 103(a) as being unpatentable over RP-020384 (3GPP TSG-RAN meeting #16, "Issues with RRC CR 1478 on measurements", June 7, 2002) in view of Hur (US Patent No. 7,324,479).

**Regarding claims 11 and 15**, RP-020384 teaches a method and means in a Radio Network Controlling unit in a mobile telecommunication network for including a

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detected set cell in an active set (as described on page 2, lines 26-29), wherein said detected set cell is a cell not identified by the network and said active set is the set comprising the base stations simultaneously connected to the same mobile terminal in soft handover (as described on page 1, lines 14-20) said method comprising the steps of:

receiving a measurement report comprising a detected set cell from a mobile terminal located in a first cell (as described on page 1, lines 23-27);

RP-020384 does not specifically teach providing a list for the first cell in the network with cells not defined as neighboring cells to the first cell, wherein the cells in the list are grouped based on their scrambling codes; identifying the scrambling code of the detected set cell; creating a temporary relation between one of the cells in the list having an identical scrambling code as the detected set cell and one cell in the AS; and, adding the one of the cells in the list having an identical scrambling code as the detected set cell to the active set.

Hur teaches providing a list for the first cell in the network with cells not defined as neighboring cells to the first cell (as described on column 3, lines 12-19; e.g. candidate set), wherein the cells in the list are grouped based on their scrambling codes (as described on column 3, lines 48-49); identifying the scrambling code of the detected set cell (as described on column 3, lines 54-56); creating a temporary relation between one of the cells in the list having an identical scrambling code as the detected set cell and one cell in the AS (as described on column 4, lines 47-52 and lines 63-65; since cells are grouped as discussed above prior to adding the candidate members to active

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set and inherent association is made between the scrambling codes or sectors); and, adding the one of the cells in the list having an identical scrambling code as the detected set cell to the active set (as described on column 4, lines 63-65).

Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify RP-020384 to use the candidate or remaining sets as the set of cells which are not part of active or neighbor sets and associate the scrambling code of the detected cell with the active set prior to adding them to the active set as described by Hur in order to register the detected cell with strong signal and update the active set with the new candidate cells for handoff and hence offer a highly efficient and robust mobile communication system to the users.

**Regarding claims 12 and 16**, RP-020384 fails to teach the temporary relation is created between a cell in the list having an identical scrambling code as the strongest detected set cell, and one cell in the AS.

Hur teaches teach the temporary relation is created between a cell in the list having an identical scrambling code as the strongest detected set cell, and one cell in the AS (as described in column 4, lines 47-52, lines 63-65 and column 3, lines 48-51).

Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify RP-020384 to build a temporary association with the cells in the (e.g. detected) list and the active set having the same scrambling code and strongest power as described by Hur in order to add a strong candidate cell to the active set for the handoff and hence offer a highly efficient and robust mobile communication system to the users.

5. Claims 13 and 17 are rejected under 35 U.S.C 103(a) as being unpatentable over RP-020384 in view of Hur and further in view of Schwarz et al. (US Patent No. 7,248,889).

**Regarding claims 13 and 17**, RP-020384 in view of Hur does not specifically teach the steps of: determining if the added cell in the list corresponds to the detected set cell by performing uplink synchronization; and if uplink synchronization is achieved: confirming that the detected set cell is the added cell of list; converting the temporary relation into a permanent relation, and removing the added cell from the list; and, if uplink synchronisation is not achieved, putting the added cell in a specific position of the list.

Schwarz teaches the steps of: determining if the added cell in the list corresponds to the detected set cell by performing uplink synchronization; and if uplink synchronization is achieved: confirming that the detected set cell is the added cell of list; converting the temporary relation into a permanent relation, and removing the added cell from the list; and, if uplink synchronisation is not achieved, putting the added cell in a specific position of the list (as described in column 4, lines 573-67 and column 5, lines 1-8).

Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify RP-020384 in view of Hur to perform the uplink synchronization with the new cell before adding it to the permanent list as

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described by Schwarz in order to verify its correct operation within the network and hence ensure a highly reliable handoff for the mobile communication system.

6. Claims 14 and 18 are rejected under 35 U.S.C 103(a) as being unpatentable over RP-020384 in view of Hur and further in view of Choi et al. (US Patent No. 7,031,277).

**Regarding claims 14 and 18**, RP-020384 in view of Hur does not specifically teach the step of informing the mobile terminal in soft handover about the added cell to the active set by transmitting a message comprising the scrambling code of the cells in the active set.

Choi teaches the step of informing the mobile terminal in soft handover about the added cell to the active set by transmitting a message comprising the scrambling code of the cells in the active set (as described in column 5, lines 47-60 and column 32, lines 2-6).

Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify RP-020384 in view of Hur to send the updated active set including the new detected cells along with their corresponding scrambling codes to the mobile terminal as described by Choi in order inform the mobile terminal the availability of new active cells for handoff and hence ensure a highly reliable and efficient handoff process for the mobile communication system.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JALALEDDIN AMIRMOKRI whose telephone number is (571)270-5880. The examiner can normally be reached on M-F 8am-5m EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benny Tieu can be reached on (571)272-7490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rafael Pérez-Gutiérrez/  
Supervisory Patent Examiner, Art Unit 2617